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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/553,316	04/20/2000	Jyunichi Kamakura	21.1977	4585

21171 7590 09/13/2004

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EXAMINER

NAHAR, QAMRUN

ART UNIT

PAPER NUMBER

2124

DATE MAILED: 09/13/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/553,316

Applicant(s)

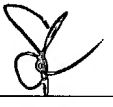
KAMAKURA ET AL.

Examiner

Qamrun Nahar

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 May 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

1. This action is in response to the amendment filed on 5/19/04.
2. Claims 1-2, 7-8 and 13-14 have been amended.
3. Claims 19-20 have been added.
4. Claims 1-20 are pending.
5. Claims 1-20 stand finally rejected under 35 U.S.C. 102(e) as being anticipated by Mattson, Jr. (U.S. 6,430,741).

Response to Amendment

Claim Objections

6. Claim 2 is objected to because of the following informalities: the status of claim 2 has been indicated as "ORIGINAL". However, an amendment has been made by the applicant on line 4 of the claim. Therefore, claim 2 has been treated as "CURRENTLY AMENDED".

Claim Rejections - 35 USC § 102

7. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
8. Claims 1-20 are rejected under 35 U.S.C. 102(e) as being anticipated by Mattson, Jr. (U.S. 6,430,741).

Per Claim 1 (Amended):

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Mattson, Jr. teaches a system analysis apparatus for analyzing a system containing one or a plurality of programs, comprising: means for examining, as an access state of a data item in said program, an access type and a number of accesses of the data item in said program (“read”, *col.3, li.14-21*; *col.3, li.31-40*; and *col.5, li.9-25*); and an analyzer for analyzing degree of association relationships (*col.3, li.31-40*) (discussing the color-coding of elements to distinguish between the number of data accesses) between processes and data items based on said access type and the number of accesses of the data item, each said process being at least one of a program, a set of programs and a program section (*col.1, li.66 to col.2, li.15*; *col.2, li.25-28*; *col.3, li.31-40*; *the color-coding of elements defines an access state*; for example, Black would indicate a high access level of “read” type, Pink would indicate a low access level of “read” type, and Red would indicate unaccessed items of “read” type).

Per Claim 2 (Amended):

Mattson, Jr. further teaches wherein said analyzer comprises means for quantifying the types and number of accesses, which are included in the data item access state, and generating quantified data item access state data (*col.3, li.14-24*).

Per Claim 3:

Mattson, Jr. further teaches wherein said analyzer comprises means for correcting said quantified data item access state data according to an external requirement including a system design requirement (*col.1, li.66 to col.2, li.15*; *col.4, li.44-56*; *fig.1 A, ref.102*).

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Per Claim 4:

Mattson, Jr. further teaches wherein said analyzer comprises means for collecting processes that access to a data item satisfying a predetermined condition in said quantified data item access state data (col.5, li.9-13; col.6, li.35-48).

Per Claim 5:

Mattson, Jr. further teaches wherein said analyzer comprises means for presenting at least one of a partitioning pattern of the data items ('visualization tool') and a division pattern of the processes, using the quantified data item access state data and the collected process information (col.10, li.25-41).

Per Claim 6:

Mattson, Jr. further teaches wherein said division pattern of the processes comprises a presentation of process interfaces ("[for functions in the source code] maintain track of access to data elements" col.5, li.5-13; fig.1A, ref.105; The term "process interface" has been treated by the examiner to include the tracking of relationships between functions and data in compiling source code.), displaying distinction between public data and private data, said public data being external data used as interfaces to processes in an other division, and private data being internal data used only within processes in a division (column 6, lines 35-64 and column 10, lines 12-24; "a data coverage specification" specifies public data and private data, where the results are displayed to a developer upon completion of execution using the "visualization tool").

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Per Claims 7-8 (Amended) & 9-12:

These claims represent the method associated with the apparatus of claims 1-6, respectively. They are rejected for the same reasons as cited above, with the method referenced at the following location (col.1, li.66 to col.2, li.4).

Per Claims 13-14 (Amended) & 15-18:

These claims represent the medium associated with the apparatus of claims 1-6, respectively. They are rejected for the same reasons as cited above, with the medium referenced at the following location (col.11, li.41-62, fig.7).

Per Claims 19-20 (New):

These are system versions of the claimed apparatus discussed above (claims 1-2, respectively), wherein all claim limitations also have been addressed and/or covered in cited areas as set forth above. Thus, accordingly, these claims are also anticipated by Mattson, Jr.

Response to Arguments

9. Applicant's arguments with respect to claims 1-20 have been fully considered but they are not persuasive.

In the remarks, the applicant argues that:

a) **CLAIM REJECTION**

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More particularly, the independent claims 1, 7, and 13 are amended to further emphasize the patentably distinguishing features of the present invention by clarifying that in contrast to Mattson, the present claimed invention provides:

1. (CURRENTLY AMENDED) A system analysis ...

Support for the claim amendments can be found, for example, on page 6, lines 1-12, of the present Application, which discloses that "access state" includes both "access type" and "number of accesses" (page 6, lines 6-7 of the present Application). As disclosed in the Specification of the present invention, "access type" refers to a type of access, e.g., reference, update, read, etc., and is tabulated separately from the number of accesses (Specification, p. 6, lines 6-7, page 7 to page 10, line 4; and FIGS. 4-6). Mattson only discloses an example of color-coded visualization of the number of accesses, but does not disclose or suggest the present claimed invention's examining a type of access of a data item in a program (i.e., "... examining ... an access state type and a number of accesses of aof the data item in said program"). The color-code example in Mattson is not at all related to present claimed invention's "an access type ... of the data item in said program."

Examiner's response:

- a) Examiner strongly disagrees with applicant's assertion that Mattson, Jr. fails to disclose the claimed limitations recited in claims 1, 7 and 13. Mattson, Jr. clearly shows each and every limitation in claims 1, 7 and 13. Mattson, Jr. teaches examining, as an

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access state of a data item in said program, an access type and a number of accesses of the data item in said program ("read", *col.3, li.14-21*; *col.3, li.31-40*; and *col.5, li.9-25*); and an analyzer for analyzing degree of association relationships (*col.3, li.31-40*) (discussing the color-coding of elements to distinguish between the number of data accesses) between processes and data items based on said access type and the number of accesses of the data item, each said process being at least one of a program, a set of programs and a program section (*col.1, li.66 to col.2, li.15*; *col.2, li.25-28*; *col.3, li.31-40*; *the color-coding of elements defines an access state*; for example, Black would indicate a high access level of "read" type, Pink would indicate a low access level of "read" type, and Red would indicate unaccessed items of "read" type).

Furthermore, in response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., reference, update, read, etc., and is *tabulated* separately from the number of accesses) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

In addition, see the rejection above in paragraph 8 for rejection to claims 1-20.

In the remarks, the applicant argues that:

b) **NEW CLAIMS 19 AND 20**

New claims 19 and 20 are also patentably distinguishing over Mattson, because in contrast to Mattson, the present invention as recited in new independent claim 19 provides,

19. (NEW) A system analysis apparatus analyzing a ...

Mattson in column 3, lines 31-40 and column 5, lines 9-25, only discloses generates coverage information 106 indicating how many times the various elements of data tables specified in the data coverage specification 102 were accessed during execution, so that Mattson does not disclose or suggest the present claimed invention's, "examining, as an access state of a data item in the least one program, an access type and a number of accesses of the data item in the at least one program ... (new independent claim 19).

Further, in contrast to Mattson, new dependent claim 20 provides: "quantifying the types of accesses to the data item and the number of accesses, which are included in said data item access state, and generating quantified data item access state data." Mattson does not provide the present claimed invention's "quantifying the types of accesses to the data item."

Examiner's response:

b) Examiner strongly disagrees with applicant's assertion that Mattson, Jr. fails to disclose the claimed limitations recited in claims 19 and 20. Mattson, Jr. clearly shows each and every limitation in claims 19 and 20. The Examiner has already addressed the applicant's arguments in the Examiner's Response (a) above.

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Furthermore, Mattson, Jr. teaches quantifying the types and number of accesses, which are included in the data item access state, and generating quantified data item access state data (col.3, li.14-24).

In addition, see the rejection above in paragraph 8 for rejection to claims 19-20.

Conclusion

10. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

11. Any inquiry concerning this communication from the examiner should be directed to Qamrun Nahar whose telephone number is (703) 305-7699. The examiner can normally be reached on Mondays through Thursdays from 9:00 AM to 6:30 PM. The examiner can also be reached on alternate Fridays.

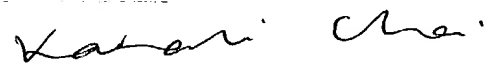
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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kakali Chaki, can be reached on (703) 305-9662. The fax phone number for the organization where this application or processing is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

Information regarding the status of an application may be obtained from the Patent-Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

QN
August 26, 2004



KAKALI CHAKI
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100